

*Measurements of the type-specimen* (mm): wing (flattened) 77.25, culmen from base 13, tarsus 18.5, tail 57. Contour plumage moult virtually complete.

*Remarks.* The breeding season of *E. i. eremica* is later than that of *sloggetti*, being more influenced by uncertain rainfall, and many birds of the topotypical population and of Kaokoland examined were still in bleached and worn dress or in the early stages of moult in mid-June. An unsexed specimen taken on the Maxohue R., in the Matopos Hills of southwestern Mazohwe Zimbabwe, during a major influx of migrants in late July 1964, with a wing 78.5 mm, and in the collection of the Durban Natural History Museum, would seem attributable to *eremica*.

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## The southern isolate of *Parus rufiventris pallidiventris* Reichenow, 1885

by P. A. Clancey

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The Rufous-bellied Tit *Parus rufiventris* Bocage, 1877, of south-central Africa, and an endemic of *Brachystegia* (Miombo) woodland savanna, is broadly divisible into 2 major population complexes on the basis of ventral plumage and iris colouration. The western group consists of 3 subspecies with the lower venter Cinnamon (Ridgway 1912) and the eye colour pale yellow. A fourth, the eastern subspecies, in contrast has the underside a dilute greyish vinaceous and the eyes dark brown. This latter

taxon—*Parus rufiventris pallidiventris* Reichenow, 1885; Kakoma, Tabora district, western Tanzania, which has *Parus rovumae* Shelley, 1892: near the Rovuma R., southeastern Tanzania, as a synonym—ranges from northwestern Tanzania at Kibondo (3°33'S, 30°30'E) east to Morogoro, thence south to northern Mozambique, southern Malaŵi east of the Rift, and as an isolate over the plateau of eastern Zimbabwe and the adjacent Manica district of southern Mozambique. This latter detached population has been shown by Hall & Moreau (1970) to have both dark and light brown irides as opposed to dark brown in the norm of topotypical *pallidiventris*. The status of this isolate was discussed in Clancey (1974), when it was postulated that it seemed to comprise 2 distinguishable subspecies: *P. r. pallidiventris* and an undescribed form, the latter presumably a relict of an earlier (of 2) southward colonizing thrusts on the part of the pale ventralled eastern elements. Later, Irwin (1981) expressed the view that the birds occurring to the south of the Zambezi are inherently unstable, with the abdomen colour either pinkish buff or pale vinaceous and the eyes either dark or light brown.

Few additional specimens from critical areas to the south of the Zambezi have come to hand since I dealt with this issue 15 years ago, and, unfortunately, no more are likely to be collected in the foreseeable future. In the light of these circumstances, it seems desirable to re-examine the case on the available material in museums in association with an appraisal of the evolutionary and ecological backgrounds.

The facies of the available specimens comports with the criteria laid down for the 2 populations outlined in my 1974 paper, showing that in addition to the characters enumerated for the Zimbabwean plateau birds they exhibit a marked white speculum over the visible base of the primaries. This important additional feature was not highlighted in the report on the earlier study, though the overall whiter nature of the wings was emphasized. In so far as variation in shades of brown of the irides as a taxonomic character is concerned, this is only employable with caution as it is essentially subjective, the data used to-date by workers having been taken from museum specimen labels rather than by direct field sampling with the evaluation of eye-colour variation in mind. Individual variation in all 4 presently recognized subspecies of the Rufous-bellied Tit is conservative; a higher incidence of such in an isolate, such as that occurring on the interior plateau south of the Zambezi, is viewed here as unlikely, the variation in the entire detached population segment being seen as the result of 2 chronologically remote colonizing events, the descendants of which now constitute discrete yet contiguous forms.

As demonstrated by Irwin (1981), in Zimbabwe *P. rufiventris* is replaced in otherwise suitable tracts of moist miombo in parts of the central plateau by the local subspecies of the Southern Black Tit *Parus niger ravidus*, the 2 tits being largely allopatric. On the other hand, the Rufous-bellied Tit is fully sympatric with a second miombo endemic parid in the Miombo Grey Tit *Parus griseiventris parvirostris*. North of the Zambezi and west to Angola, similar niche partitioning among these tit species and the White-winged Black Tit *Parus leucomelas insignis* is found (see in particular comment by Benson *et al.* 1971). The relatively limited range of the Zimbabwean population of *P. rufiventris* results from the

constraints of competition with *P. niger* and the limited expanse of suitable moist miombo woodland savanna, much of western and southern Zimbabwe being too dry for its requirements.

Viewing the birds present to the south of the Zambezi as derived from 2 separate colonizations from regions to the north of the river, those stemming from the second expansionary event are indistinguishable from *P. r. pallidiventris*, but the descendants of the primal invasion, showing distinctive characters, require a name:

***Parus rufiventris stenotopicus*, subsp. nov.**

*Type.* ♂. Mt Maienji (Mwenji), Odzi district, Mashonaland, Zimbabwe, at 18°56'S, 32°21'E, 12 December 1953. Collected by M. P. Stuart Irwin. In the collection of the Natural History Museum of Zimbabwe, Bulawayo, Mus. Reg. No. 16 347.

*Description.* Differs from *P. r. pallidiventris* in having the black fore-throat abruptly terminated and not bled down over the upper and mid-breast as in Tanzanian specimens. The wings are overall whiter, the coverts more broadly edged and tipped with white, the remiges with broader fringes to the outer vanes, the primaries with a pronounced white speculum which extends some 7–9 mm, *versus* 2–4 mm in *pallidiventris*, beyond the apex of the primary-coverts. Subtle differences include a slightly paler grey mantle, duller, less jet black surfaces to the entire head and fore-throat, paler grey to the sides of the lower breast, and a lighter greyish vinaceous mid-ventral surface. Irides light brown. Size ranging larger.

*Measurements.* Wings of 5 ♂♂ 84–87 (85.9), SD 1.14 and of 1 ♀ 82 mm.

*Material examined.* 6 (Mermaid's Pool, N. of Harare, at 17°39'S, 31°22'E; Mt Maienji, Odzi; Banti Forest Reserve (19°20'S, 32°46'E); Haroni R. valley; Makurupini R. Valley.

*Range.* The moist miombo woodland savanna of Manicaland and Mashonaland, Zimbabwe, from the rain-shadow aspects of the eastern Highlands, at c. 32°46'E, west to c. 31°00'E, and north in Mashonaland to Mrewa and Shamva (17°18'S, 31°34'E). Intergrades to the east of its range on the seaward facing versant of the Eastern Highlands with *pallidiventris*, which extends eastwards to the Manica district of Mozambique. Somewhat sparse throughout its established range.

*Etymology.* *stenotopicus*, from Greek (and modern ecology), occupying a restricted or narrow environmental niche.

*Measurements of the Type.* Wing 87, tail 72 mm.

*Remarks.* The wing-measurements of the other subspecies of the Rufous-bellied Tit are as follows (mainly from Clancey 1979):

*P. r. diligens*: 4 ♂♂ 86.5–89 (87.8), SD 1.31; 2 ♀♀ 82, 82

*P. r. rufiventris*: 30 ♂♂ 83–89 (85.3), SD 1.70; 13 ♀♀ 80–86 (82.4), SD 2.06

*P. r. masukuensis*: 12 ♂♂ 83–87 (85.1), SD 1.54; 12 ♀♀ 77.5–83.5 (80.7), SD 2.12

*P. r. pallidiventris*: 10 ♂♂ 80–84.5 (82.1), SD 1.51.

The tail-length also varies geographically, with ♂♂ of pale yellow-eyed subspecies *diligens* with a tail of >70 mm, and *rufiventris* and *masukuensis*

with tails of <69 mm. In the case of the race with dark brown eyes—*pallidiventris*—tails measure <66 mm; in *stenotopicus* tails measure >69 mm.

While the range of *P. r. stenotopicus* over the Manicaland and Mashonaland plateau has been shown by Irwin to be restricted to stands of moist *Brachystegia* woodland savanna (*Miombo*), the ecological backgrounds of the other 4 races are on the whole more expansive in nature. In the case of *P. r. diligens* Clancey 1979; Andara, Okavango R., northeastern South West Africa/Namibia, this subspecies of the western cinnamon-ventralled plexus affects the dry woodlands of the Kavango region of Namibia, which constitute the ecotone between the *Brachystegia* savannas of Angola and Zambia and the *Acacia* steppe of the South West Arid Zone. In this ecotone, *Parus rufiventris diligens* and the local race of the Southern Black Tit *Parus niger xanthostomus* are largely sympatric, this combination probably effected in part by the absence of a local form of the Miombo Grey Tit *Parus griseiventris*.

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## An undescribed plumage of the Crested Bird of Paradise *Cnemophilus macgregorii*

by C. B. Frith and C. J. O. Harrison

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The Crested Bird of Paradise *Cnemophilus macgregorii* is a little known, medium-sized, sexually dimorphic bird of paradise (Paradisaeidae) of the subfamily Cnemophilinae living in upper montane forests and subalpine shrubbery of the mountains of the Central Highlands, Eastern Highlands